



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/566,307	01/27/2006	Dean Kamen	1062/E19	4217
73544	7590	07/17/2009	EXAMINER	
Michelle Saquet Temple			LAUGHLIN, NATHAN L	
DEKA Research & Development Corporation			ART UNIT	PAPER NUMBER
340 Commercial Street			2123	
Manchester, NH 03101-1129				
MAIL DATE		DELIVERY MODE		
07/17/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/566,307	<b>Applicant(s)</b> KAMEN ET AL.
	<b>Examiner</b> NATHAN LAUGHLIN	<b>Art Unit</b> 2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 17 June 2009.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-4,6-10 and 14-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-4,6-10 and 14-23 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/1449)  
 Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_
- 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_

**DETAILED ACTION**

Claims 1-4, 6-10, 14-23 are pending.

Claims 1-4, 6-10, 14-23 are rejected below.

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6-17-09 has been entered.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-4, 6-10, 14-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the water generation device" in line 5. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4, 6-10, 12-17, 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson (U.S. Pat. 5,973,481) in view of Underwood (U.S. PG Pub. 2003/0220717).

As to claim 1, Thompson teaches a system comprising: a generation device for converting an available resource to a desired utility (abstract), the generation device characterized by a plurality of operating parameters (col. 8 lines 13-23); b. an input sensor for measuring input to the generation device (col. 8 line 65- col. 9 lines 10); c. an output sensor for measuring consumption of output from the generation device (col. 8 line 65- col. 9 lines 10);  
d. a controller for concatenating measured input and consumption of output on the basis of the input and output sensors (col. 8 line 65- col. 9 lines 10).  
e. a remote controller for modifying operation of the generation device: based on the concatenated measured input and consumption of output (fig. 20, col. 17 lines 43-54).

As to claim 2, Thompson teaches a sensor for measuring at least one parameter of the said plurality of operating parameters of the generation device (fig 20).

As to claim 3, Thompson teaches one senor is a heat transfer monitor (col. 3 lines 7-25).

As to claim 6, Thompson teaches wherein the input sensor is a flowrate monitor (col. 9 lines 12-17).

As to claim 11, Thompson teaches the generation device is an electrical power generator (abstract).

As to claim 12, Thompson teaches an input sensor includes a fuel consumption rate monitor (col. 9 lines 12-17).

As to claim 13, Thompson teaches an output sensor includes an electrical usage meter monitor (col. 8 line 65 col. 9 line 10).

As to claim 14, Thompson teaches a monitoring system comprising a telemetry module for communicating measured input and output parameters to a remote site (fig.1, 2 elements 48, 50).

As to claim 15, Thompson teaches the telemetry module is a cellular communications system (col. 7 lines 4-10).

As to claim 16, Thompson teaches a telemetry module is a wireless system (col. 7 lines 4-10).

As to claim 17, Thompson teaches a remote actuator for varying operating parameters of the generator based on remotely received instructions (col. 17 lines 43-54).

As to claim 21, Thompson teaches a system comprising: providing a generation device (abstract); coupling an input sensor for measuring input to the generation device (col. 8 line 65- col. 9 lines 10); coupling an output sensor for measuring consumption of output from the generation device (col. 8 line 65- col. 9 lines 10); and coupling a controller to the input and output sensor for concatenating measured input and consumption of output on the basis of the input and output sensors (col. 8 line 65- col. 9 lines 10), and providing a remote controller for modifying operation of the generation device based on the concatenated measured input and consumption of output (fig. 20, col. 17 lines 43-54).

As to claim 22, Thompson teaches providing communication between a telemetry module and said controller (fig. 1-2, elements 48, 50); and providing communication

between said telemetry module and a monitoring station (fig. 1-2, elements 48, 50).

As to claim 23, Thompson teaches a distributed network of utilities comprising: generators for converting a resource into a useful utility (abstract); input sensors for measuring inputs to respective generators (col. 8 line 65- col. 9 lines 10); output sensor for measuring consumption of output from respective generators, wherein each generator has a local controller that concatenates the measured input and consumption of output from the respective (col. 8 line 65- col. 9 lines 10); a telemetry transmitter for transmitting input and output parameters of a specified generator (fig.3 elements 50, 39); and a remote processor for receiving input and output parameters from a plurality of utility generators (col. 8 lines 40-52, col. 17 lines 43-54).

Thompson differing from the invention as recited in claims 1, 4, 7-10, 21, 23 in that the combined discloser or teaching fails to disclose or teach teaches the following:

As to claims 1, 2, 8, 17, 21, 23, wherein the generation device is a water purifier and monitoring a flow sensor from the source water.

As to claim 4, wherein the at least one sensor is a flow impedance monitor.

As to claim 7, wherein the output sensor includes a water quality sensor including at least one of turbidity, conductivity, and temperature sensor.

As to claim 8, a shut off switch that automatically turns off said generation device when said water quality sensor rises above a pre-programmed water quality value.

As to claim 9, an alarm that alerts a user when said water quality value rises above a pre-programmed water quality value.

As to claim 10, a remotely operable shut off switch.

However Underwood teaches the following:

As to claims 1, 2, 8, 17, 21, 23, Underwood teaches wherein the generation device is a water purifier and monitoring a flow sensor for the source water (abstract, [0024]).

As to claim 4, Underwood teaches wherein the at least one sensor is a flow impedance monitor [0035]. Underwood teaches the difference in pressure (flow impedance) through components in a water treatment facility.

As to claim 7, Underwood teaches wherein the output sensor includes a water quality sensor including at least one of turbidity, conductivity, and temperature sensor [0035].

As to claim 8, Underwood teaches a shut off switch that automatically turns off said generation device when said water quality sensor rises above a pre-programmed water quality value [0036-0028]. Underwood teaches if the water quality is not high enough that a backwash must be done. This would stop water treatment.

As to claim 9, Underwood teaches an alarm that alerts a user when said water quality value rises above a pre-programmed water quality value [0050]. Underwood teaches that a user can remotely monitor the data using a SCADA control panel and issue a backwash if needed.

As to claim 10, Underwood teaches a remotely operable shut off switch (col. 19 lines 58-65).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was created to include the teachings of Underwood into the system and methods as disclosed by Thompson. The motivation to combine is using a remote SCADA system a user can control the quality of a utility, such as water, by taking the appropriate action to successfully perform processes based on prompts from the control system [0049-0050].

Art Unit: 2123

6. Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson (U.S. Pat. 5,973,481) in view of Underwood (U.S. PG Pub. 2003/0220717) and in further view of Tucker (U.S. Pat. 6,568,416).

Thompson and Underwood differs from the invention as recited in claims 18-20 in that the combined disclosers or teachings fail to disclose or teach teaches the following:

As to claim 18 a self-locating device having an output indicative of the location of the monitoring system.

As to claim 19, the self-locating device is a global positioning system.

As to claim 20, monitored characteristics of input and output depend upon the location of the monitoring system.

However Tucker teaches the following:

As to claim 18, Tucker teaches a self-locating device having an output indicative of the location of the monitoring system (col. 12 lines 47-66).

As to claim 19, Tucker teaches the self-locating device is a global positioning system (col. 12 lines 47-66).

As to claim 20, Tucker teaches monitored characteristics of input and output depend upon the location of the monitoring system (col. 12 lines 47-66).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a GPS component as done in Tucker into the monitoring system of Thompson further modified by Underwood. The motivation to combine is using GPS systems can increase precision and reduce errors (col. 1 line 63-col. 2 line 10).

#### ***Response to Arguments***

7. Applicant's arguments filed 6-17-09 have been fully considered but they are not persuasive.

On page 6-7 Applicant seems to summarize some of the teachings of Underwood. Applicant goes on to argue that Underwood does not teach that an output sensor for measuring consumption of purified water output from the water device. Not with standing the fact that Examiner has used Thompson for "an output sensor for measuring consumption of output from the generation device" as was stated above, Examiner still disagrees. It can be seen that both the level sensor (input of the filter) and flow meter (output of the filter) are present within Underwood (fig. 2 elements 208 220, fig. 3 elements 322 and 334) both of these measurements are sent back to the controller so that proper backwash can be issued when needed [0030]. Examiner notes

that "consumption" is not defined within the claimed invention, therefore, it is can be interpreted as "the use of". That is, the water pumped out of the system is considered consumed. Also it seems that Applicant is only taking into consideration of Underwood. Examiner reminds Applicant that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Therefore, Applicant must consider not only Underwood, but the teachings of Thompson that include monitoring the input and output and concatenating the measurements for modifying operations as shown above.

### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NATHAN LAUGHLIN whose telephone number is (571)270-1042. The examiner can normally be reached on M - F, 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached on 571-272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nate Laughlin/  
Examiner, Art Unit 2123

/Kidest Bahta/  
Primary Examiner, Art Unit 2123